

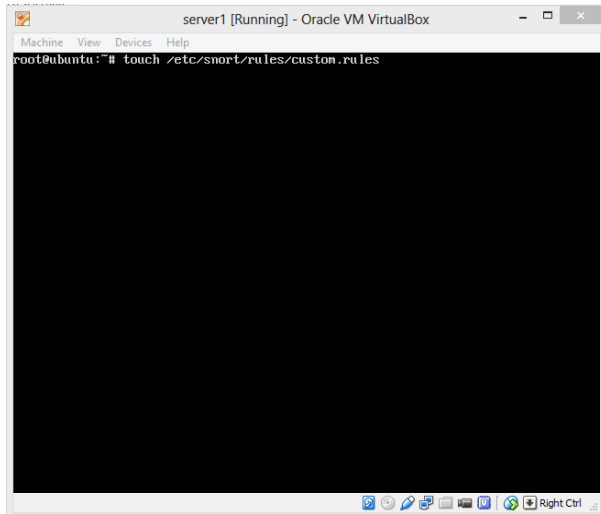
**Keamanan Jaringan Komputer
Operasi Snort**



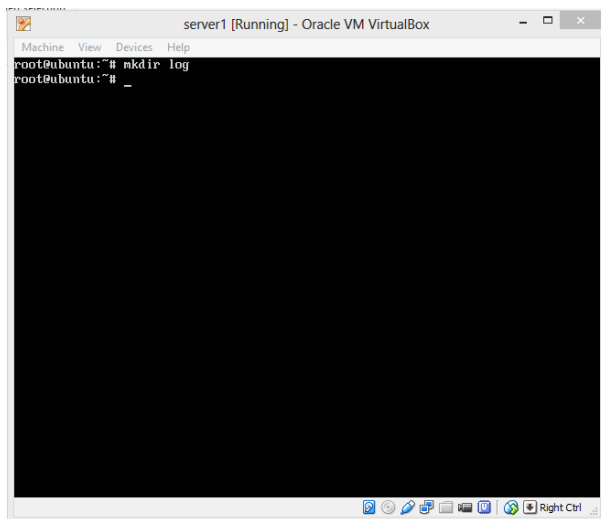
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NIM : 09011181320028**

**SISTEM KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS SRIWIJAYA
2017**

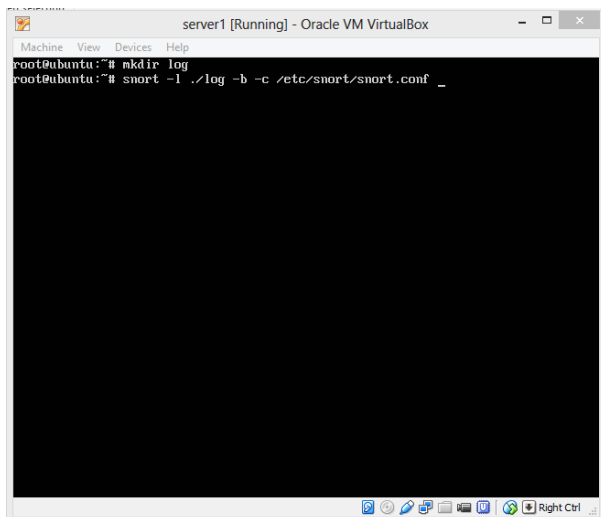
Berikut adalah uraian data penggunaan snort sebagai analisis alert terhadap penyerangan dalam jaringan



```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
root@ubuntu:~# touch /etc/snort/rules/custom.rules
```



```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
root@ubuntu:~# mkdir log
root@ubuntu:~# _
```



```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
root@ubuntu:~# mkdir log
root@ubuntu:~# snort -i ./log -b -c /etc/snort/snort.conf _
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help

--- Initialization Complete ---

--> Snort! <--
Version 2.9.6.0 GRE (Build 47)
By Martin Roesch & The Snort Team: http://www.snort.org/snort/snort-4
Copyright (C) 2014 Cisco and/or its affiliates. All rights reserved.
Copyright (C) 1998-2013 Sourcefire, Inc., et al.
Using libpcap version 1.5.3
Using PCRE version: 8.31 2012-07-06
Using ZLIB version: 1.2.8

Rules Engine: SF_SMORT_DETECTION_ENGINE Version 2.1 <Build 1>
Preprocessor Object: SF_DCERPC2 Version 1.0 <Build 3>
Preprocessor Object: SF_IMAP Version 1.0 <Build 1>
Preprocessor Object: SF_SSH Version 1.1 <Build 3>
Preprocessor Object: SF_SOF Version 1.1 <Build 4>
Preprocessor Object: SF_SMTP Version 1.1 <Build 9>
Preprocessor Object: SF_DNS Version 1.1 <Build 4>
Preprocessor Object: SF_MODBUS Version 1.1 <Build 1>
Preprocessor Object: SF_REPUTATION Version 1.1 <Build 1>
Preprocessor Object: SF_POP Version 1.0 <Build 1>
Preprocessor Object: SF_FTPTELNET Version 1.2 <Build 13>
Preprocessor Object: SF_DNP3 Version 1.1 <Build 1>
Preprocessor Object: SF_SSLPP Version 1.1 <Build 4>
Preprocessor Object: SF_GTP Version 1.1 <Build 1>
Preprocessor Object: SF_SIP Version 1.1 <Build 1>

Commencing packet processing (pid=1732)
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help

GET methods: 0
HTTP Request Headers extracted: 0
HTTP Request Cookies extracted: 0
Post parameters extracted: 0
HTTP response Headers extracted: 0
HTTP Response Cookies extracted: 0
Unicode: 0
Double unicode: 0
Non-ASCII representable: 0
Directory traversals: 0
Extra slashes ("//"): 0
Self-referencing paths ("./"): 0
HTTP Response Gzip packets extracted: 0
Gzip Compressed Data Processed: n/a
Gzip Decompressed Data Processed: n/a
Total packets processed: 1

=====
SMTP Preprocessor Statistics
Total sessions: 0
Max concurrent sessions: 0
=====
dcerpc2 Preprocessor Statistics
Total sessions: 0
=====
SIP Preprocessor Statistics
Total sessions: 0
=====

Snort exiting
root@ubuntu:~#
```

The screenshot shows the Zenmap GUI with the following details:

- Target:** 104.16.213.202
- Profile:** Intense scan
- Command:** nmap -T4 -A -v 104.16.213.202
- Output:**

```
Starting Nmap 7.25BETA1 ( https://nmap.org ) at 2017-03-08 19:19
WIB
NSE: Loaded 138 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 19:20
Completed NSE at 19:20, 0.00s elapsed
Initiating NSE at 19:20
Completed NSE at 19:20, 0.00s elapsed
Initiating Ping Scan at 19:20
Scanning 104.16.213.202 [4 ports]
Completed Ping Scan at 19:20, 0.00s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 19:20
```
- Terminal (Left):** Shows packet capture data for eth0, highlighting an Internet Control Message (ICMP) packet with source IP 104.16.213.202 and destination IP 104.16.213.1.

```
GNU nano 2.2.6      File: /etc/snort/snort.conf      Modified
include $RULE_PATH/web-php.rules
include $RULE_PATH/x11.rules
include $RULE_PATH/community-sql-injection.rules
include $RULE_PATH/community-web-client.rules
include $RULE_PATH/community-web-dos.rules
include $RULE_PATH/community-web-iis.rules
include $RULE_PATH/community-web-misc.rules
include $RULE_PATH/community-web-php.rules
include $RULE_PATH/community-sql-injection.rules
include $RULE_PATH/community-web-client.rules
include $RULE_PATH/community-web-dos.rules
include $RULE_PATH/community-web-iis.rules
include $RULE_PATH/community-web-misc.rules
include $RULE_PATH/community-web-php.rules
include $RULE_PATH/custom.rules_

#####
# Step #8: Customize your preprocessor and decoder alerts
# For more information, see README.decoder_preproc_rules
#####

# decoder and preprocessor event rules
# include $PREPROC_RULE_PATH/preprocessor.rules
# include $PREPROC_RULE_PATH/decoder.rules
# include $PREPROC_RULE_PATH/sensitive-data.rules

^G Get Help      ^O WriteOut     ^R Read File    ^V Prev Page   ^X Cut Text    ^C Cur Pos
^X Exit          ^J Justify     ^W Where Is   ^N Next Page   ^U UnCut Text ^T To Spell
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
root@ubuntu:~# snort -i ./log -b -c /etc/snort/snort.conf -r data.pcap _
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
root@ubuntu:~# cd log/
root@ubuntu:~/log# ls
alert snort_log_1488978066
root@ubuntu:~/log#
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
[**] [1:469:3] ICMP PING NMAP [**]
[Classification: Attempted Information Leak] [Priority: 2]
03/08-19:20:01.564735 10.0.2.15 -> 104.16.213.202
ICMP TTL:49 TOS:0x0 ID:16825 IpLen:20 DgmLen:28
Type:8 Code:0 ID:58299 Seq:0 ECHO
[Xref => http://www.whitehats.com/info/IDS162]

[**] [1:384:5] ICMP PING [**]
[Classification: Misc activity] [Priority: 3]
03/08-19:20:01.564735 10.0.2.15 -> 104.16.213.202
ICMP TTL:49 TOS:0x0 ID:16825 IpLen:20 DgmLen:28
Type:8 Code:0 ID:58299 Seq:0 ECHO

[**] [1:453:5] ICMP Timestamp Request [**]
[Classification: Misc activity] [Priority: 3]
03/08-19:20:01.565050 10.0.2.15 -> 104.16.213.202
ICMP TTL:53 TOS:0x0 ID:59645 IpLen:20 DgmLen:40
Type:13 Code:0 ID: 21508 Seq: 0 TIMESTAMP REQUEST

[**] [1:1421:11] SNMP AgentX/tcp request [**]
[Classification: Attempted Information Leak] [Priority: 2]
03/08-19:20:16.326556 10.0.2.15:47523 -> 104.16.213.202:705
TCP TTL:37 TOS:0x0 ID:45870 IpLen:20 DgmLen:44
*****S* Seq: 0xDP0566CA Ack: 0x0 Win: 0x400 TcpLen: 24
TCP Options (1) => MSS: 1460
[Xref => http://cve.mitre.org/cgi-bin/cvename.cgi?name=2002-0013][Xref => http://cve.mitre.org/cgi-bin/cvename.cgi?name=2002-0012][Xref => http://www.securityfocus.com/bid/4132][Xref => http://www.securityfocus.com/bid/4089][Xref => http://www.securityfocus.com/bid/4088]
```

```
server1 [Running] - Oracle VM VirtualBox
Machine View Devices Help
TCP Gaps: 0
UDP Sessions Created: 2
UDP Sessions Deleted: 2
UDP Timeouts: 0
UDP Discards: 0
Events: 0
Internal Events: 0
TCP Port Filter
  Filtered: 0
  Inspected: 0
  Tracked: 1852
UDP Port Filter
  Filtered: 0
  Inspected: 8
  Tracked: 2
=====
SMTP Preprocessor Statistics
  Total sessions : 0
  Max concurrent sessions : 0
=====
dcerpc2 Preprocessor Statistics
  Total sessions: 0
=====
SIP Preprocessor Statistics
  Total sessions: 0
=====
Short exiting
root@ubuntu:~#
```

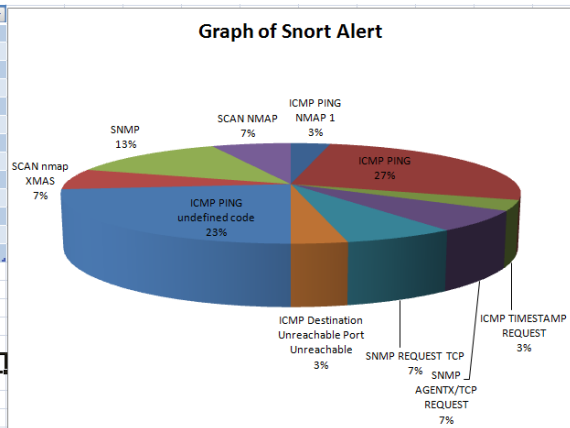
```
1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 .....
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[Classification: Attempted Information Leak] [Priority: 2]
03/08-19:20:01.564735 10.0.2.15 -> 104.16.213.202
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```

3	Column1	Column2
4	ICMP PING NMAP 1	1
5	ICMP PING	8
6	ICMP TIMESTAMP REQUEST	1
7	SNMP AGENTX/TCP REQUEST	2
8	SNMP REQUEST TCP	2
9	ICMP Destination Unreachable Port Unreachable	1
10	ICMP PING undefined code	7
11	SCAN nmap XMAS	2
12	SNMP	4
13	SCAN NMAP	2
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		



ANALISIS:

Telah diperhatikan bahwa setiap alert terbagi dalam masing-masing kelompok dan tersusun dengan rapi sesuai dengan urutan data yang didapatkan. Data yang disajikan adalah data hasil segmentasi dari aplikasi wireshark terhadap penggunaan nmap untuk target. Hal ini akan menghasilkan beberapa titik-titik penyerangan untuk bahan analisis.

Perlu diketahui penggunaan rules oleh penulis tidaklah semua rules digunakan dan juga proses scanning yang dilakukan tidaklah lama untuk mendapatkan banyak informasi, hal ini mengakibatkan data yang didapatkan tidaklah maksimal. Namun untuk penggunaan awal dari aplikasi snort diharapkan sudah sesuai dengan kebutuhan dan perlu untuk dikembangkan lagi.